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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,075	10/31/2001	Dale L. Capewell	PW 249983 P13335	5323

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EXAMINER

WOOD, KEVIN S

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 06/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,075

Applicant(s)

CAPEWELL ET AL.

Examiner

Kevin S Wood

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 23-38 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-19 is/are allowed.
- 6) ☒ Claim(s) 1 and 20 is/are rejected.
- 7) ☒ Claim(s) 2,3,21 and 22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 4.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: Brian Healy

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-22, drawn to couplers, classified in class 385, subclass 31.
- II. Claims 23-38, drawn to multiplexers, classified in class 398, subclass 43.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because any coupler that focuses/collimates light to and/or from an optical source could be used within the multiplexers of the current invention. The subcombination has separate utility such as the collimating/focusing assemblies could be utilized in any system that required light be collimated from a fiber or be focused into a fiber.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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4. During a telephone conversation with Eric Chen on 6/5/03 a provisional election was made with traverse to prosecute the invention of group I, claims 1-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 1, 2, 3, 5, and 6. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 1 recites the limitation "the optical source" in lines 7 through 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

9. Claims 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. U.S. 6269,203 to Davies et al.

Referring to claim 20, Davies et al. discloses a focusing optical device, including: a wedge element (62) that receives the collimated beam, a spacer element; and an aspheric lens (74), where the assembly is fabricated of optically transparent material and integrated as a single part. Davies et al. does not appear to specifically disclose that the assembly is injection molded. However, it would have been obvious to one having ordinary skill in the art at the time of invention was made to utilize injection molding to form the assembly disclosed by Davies et al., because injection molding is a fast and inexpensive manufacturing process for producing molded components.

Allowable Subject Matter

10. Claims 4-19 are allowed.

11. Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

12. Claims 2, 3, 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

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Referring to claims 1-3, the prior art does not disclose all the combination of all the limitations of the claimed invention. The prior art does not disclose a an aspheric lens integrated on the second surface, where the aspheric lens serves to collimate the redirected light beam or focus the light beam before being redirected.

Referring to claims 4-7, the prior art does not disclose all the combination of all the limitations of the claimed invention. The prior art does not disclose a an aspheric lens integrated on the second surface, where the aspheric lens serves to collimate the redirected light beam or focus the light beam before being redirected.

Referring to claims 8-12, the prior art does not disclose all the combination of all the limitations of the claimed invention. The prior art does not disclose a an aspheric lens integrated on the second surface, where the aspheric lens serves focus the light beam before being redirected into the optical fiber core.

Referring to claims 13 and 14, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose the base of the triangular wedge having curvature to enable it to act as a cylindrical mirror and the input beam being an elliptically shaped beam before being redirected by the cylindrically curved base, the redirected light beam being a substantially circularly shaped beam.

Referring to claims 15-19, the prior art does not disclose the combination of all the limitations of the claimed invention. The prior art does not disclose a wedge element that refracts the collimated light beam into air at an angle relative to the axis of the aspheric lens consistent with Snell's law.

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Referring to claim 21, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose a photodetector residing at the focus point of the aspheric lens.

Referring to claim 22, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose a the spacer element being inserted to allow molten optical transparent material to more easily flow through the mold for fabricating the focusing optical subassembly.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Application Publication 2002/0067886 to Schaub

This reference discloses a device that is very similar to that of the claimed invention.


Brian Healy
Primary Examiner